

Assigned DOGM File No.: S/O 1510105
DOGM Lead: Wayne
Permit Fee \$ _____ Ck# _____

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291 Fax: (801) 359-3940

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Div. of Oil, Gas & Mining

NOTICE OF INTENTION TO COMMENCE SMALL MINING OPERATIONS

The information requirements of this form are based on provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1987, and the General Rules as promulgated under the Utah Minerals Regulatory Program (R647). The rules and Act are available online at <http://www.rules.utah.gov/publicat/code/r647/r647.htm> and http://le.utah.gov/~code/TITLE40/40_08.htm.

Cultural Resources Survey: To fulfill its obligations under Utah Code Annotated 9-8-404, the Division needs cultural resource (archaeology) information. The amount and type of information required will depend on the mine location, the history of previous disturbance, and other factors. Please contact the Division for further information.

A permit fee of \$150 must accompany this application (Utah Code Ann. §40-8-7(1)(i)) and is due annually.

"Small Mining Operations" are operations which have a disturbed area of ten or fewer surface acres at any time in unincorporated areas, or five acres or fewer in incorporated areas.

I. GENERAL INFORMATION (Rule R647-3-104)

1. Name of Mine: Number 2 Clark Mine
- 2.A. Name of Entity Applying for a Permit: Miracle Rock Mining and Research LC
Contact (Authorized Officer): David Taylor
Mailing Address: PO Box 76
City, State, Zip: Emery, UT 84522
Phone: 435-286-2222 Fax: 435-286-2322
E-mail Address: david@liveearth.com

Entity is a: () Corporation, (☒) LLC, () Sole Proprietorship (dba), () Individual, () Partnership (☐ General, or ☐ limited), () Other (specify type) _____

Business Entity (not individuals) must be registered (and maintain registration) with the State of Utah, Division of Corporations (DOC) If not currently registered, contact www.commerce.utah.gov to renew or apply.

- 2.B. Are you currently registered to do business in the State of Utah? () Yes () No

Business Entity #: 87-0672042

Local Business License #: _____ (if required)

Issued by: County: _____ or City: _____

Registered Utah Agent (as identified with the Utah DOC) (if individual leave blank):

Name: _____ Title: _____

Address: _____

City, State, Zip: _____

Phone: _____ Fax: _____

E-mail Address: _____

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May 17, 2016

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Div. of Oil, Gas & Mining

Minerals Program

Division of Oil, Gas and Mining

1594 West North Temple, Ste 1210

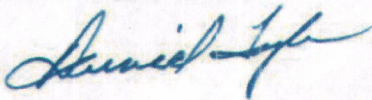
Salt Lake City, UT 84114-5801

RE: Notice of Intent to Commence Small Mining Operation in Emery County, UT.

Miracle Rock Mining and Research LLC (operator) hereby submits a new operation plan and application package to commence mining humic shale from Utah State Lease # ML43181HS property. The plan intends to utilize highwall mining methods.

The complete application contains a notice of intent to commence small mining operations, (MR-SMO). Attached to the MR-SMO are the location map, surface facility map, and an operation plan. Once the NOI application is approved, Form MR-RC will be included for signatory provisions of the bonding agreement. If you have any questions or concerns regarding this submittal, please contact me at 435-286-2222.

Sincerely,



David Taylor

Operator of Number 2 Clark Mine

Enclosures:

Form MR-SMO

Operation Plan

Figures 1-6b

W-9

- 2.C. **Entity's Representative(s)** (if different from #2A) authorized and designated to receive notices of violation, cessation orders, and all other notices to be given to the permittee or operator by the Division.

Name: Dennis Oakley Title: Permitting Coordinator

Address: 419 North 1230 West

City, State, Zip: Price UT 84501

Phone: 435-650-9233

Fax: _____

Emergency, Weekend, or Holiday Phone: _____

E-mail Address: dco@emerytelcom.net

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Name: _____ Title: Div. of Oil, Gas & Mining

Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

Emergency, Weekend, or Holiday Phone: _____

E-mail Address: _____

3. **If Business is a Sole Proprietor (dba) or Individual:**

Name of Owner: _____ Title: _____

Business Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

E-mail Address: _____

If Business is a Corporation:

Name of Officers: _____ Title: _____

Name: _____

Title: _____

Name: _____

Title: _____

Name: _____

Title: _____

Headquarters Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

E-mail Address: _____

If Business is a Limited Liability Company: Member Managed (☐) Manager Managed (☐)

Name of 1st Member/Manager: David Taylor

Title: President

Business Address: PO Box 76

City, State, Zip: Emery, UT 84522

Phone: 435-286-2222

Fax: 435-286-2322

E-mail Address: david@liveearth.com

Name of 2nd Member/Manager: _____ Title: _____

Business Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

E-mail Address: _____

If Business is a Partnership:

Names of Partners: _____

Business Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

E-mail Address: _____

If Business is a Partnership:

Names of Partners: _____

Business Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

E-mail Address: _____

5. Ownership of Land Surface:

Private (Fee) (☐) BLM (☐) US Forest Service (☐)
 State Trust Land/School Sections (☒) State Sovereign Lands (☐)
 Other (please describe): _____

Name John Blake Address 675 E. 500 S. SLC, UT 84102-2818

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

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6. Ownership of Minerals:

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Private (Fee) (☐) BLM (☐) US Forest Service (☐)
 State Trust Land/School Sections (☒) State Sovereign Lands (☐)
 Other (please describe): _____

Div. of Oil, Gas & Mining

Name John Blake Address 675 E. 500 S. SLC, UT 84102-2818

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

BLM Claim Number(s): _____

Utah State Lease Number(s): 43181-HS

BLM/USFS Lease or Project File Number(s): _____

Name of Lessee(s): Emery Minerals LLC

7. **Have the above surface and mineral owners been notified in writing?** Yes ☒ No _____
 If no, why not? _____

8. **Does the Entity have legal right to enter and conduct mining operations on the land covered by this notice?** Yes ☒ No _____

What is the pre-mining land use, i.e. cropland, grazing, wildlife habitat? Grazing

What is the post-mining land use? Grazing

Please be advised that if State Trust Lands are involved, notification to the Division of Oil, Gas and Mining alone does not satisfy the notification requirements of Mineral Leases upon State Trust Lands. Exploration or mining activity on State Trust Lands requires a minimum of 60 days notice to the Trust Lands Administration prior to commencing any activities. Please contact the School Institutional Trust Lands Administration (SITLA) at (801) 538-5508 for notification requirements.

II. PROJECT LOCATION & MAP (Rule R647-3-105)

1. **Project Location & Map** (legal description):

County(ies): Emery

NW 1/4, of NW 1/4, of 1/4, Section: 2 Township: 235 Range: R6E

SW 1/4, of NW 1/4, of 1/4, Section: 2 Township: 235 Range: R6E

1/4, of 1/4, of 1/4, Section: _____ Township: _____ Range: _____

UTM East: _____ (if known) UTM North: _____ (If known)

Name of Quad Map for Location: Mesa Butte 7.5 Minute Quad

2. **Is the project within an incorporated area?** (☐) Yes (☒) No
If yes, what is the town or city? _____
3. **Location and Operations maps** must be plotted at a scale to accurately identify locational landmarks and operations details. All maps must include a north arrow, scale, appropriate labels, and title box including the mine name, township, range and section.
 - a. The **general location map** must be the scale of a USGS 7.5 minute series map or equivalent (1"=2000') and identify new or existing access roads.
 - b. The **operations map** (1"=200' or other scale as determined necessary by the Division) must be labeled and identify:
 - i. The area to be disturbed;
 - ii. The location of any existing or proposed operations including access roads, drill holes, trenches, pits, shafts, cuts, or other planned activities; and
 - iii. Any adjacent previous disturbance for which the operator is not responsible.
 (Contact the Division for a list of consultants and land surveyors for mapping assistance.)
4. The proposed (5 acre or less) disturbed area (including access/haul roads) should be marked ON THE GROUND with metal T-Posts (or with some other marker of equal effectiveness). Markers should be appropriately spaced so that the next marker in either direction is clearly visible with the naked eye.

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III. **OPERATION PLAN** (Rule R647-3-106)

1. **Type of mining:** Surface (☒) Underground (☐)
2. **Mineral(s) to be mined:** _____
3. **Amount of material** to be extracted, moved, or proposed to be moved: Quantity depends on amount found at site, expecting > 500 tons.
4. Will any **water, liquid chemicals, reagents, or other solutions** be used, produced or discharged as part of the mining or milling process? Yes (☐) No (☒) If yes, please describe (add extra pages if needed): _____
5. Provide a brief **description of the proposed mining operation**, and onsite processing facilities (add extra pages if necessary). The topsoil and sub-soil will be removed and stored. Over-riding sandstone will be removed and stored. Humate will be removed and shipped to designation. Sub-soil and sandstone will be placed in the bottom of the pit and sloped 2:1 and topsoil will be placed on top. Reseeding will be done with DOGM recommended seed.
6. (☒) **New Road(s):** Length 620 (ft), Width 20' (ft)
7. (☐) **Improved Road(s):** Describe improvements that need to be made to existing roads to access the site, including the Length _____ (ft) and Width _____ (ft) of new disturbances.
8. Total project surface **acreage to be disturbed:** 4.2 (acres) PLEASE SPECIFY EXACT ACREAGE (this will be used to determine surety bond amount – see #VI).
9. Proposed **startup date** (month, year): May 2016
10. Proposed **completion**, if known (month, year): Not known at this time

IV. OPERATION AND RECLAMATION PRACTICES (Rule R647-3-107, 108 & 109)

The reclamation and operation obligation is to keep the area clean and safe, minimize hazards to public safety, return the land to a useful condition, and reestablish at least 70 percent of the premining vegetative ground cover or within practical limits. To accomplish this, the Permittee / Operator will need to perform reclamation concurrently, or at the completion (within one (1) year) of mining. Please refer to The Practical Guide to Reclamation in Utah, available at:

https://fs.ogm.utah.gov/pub/MINES/Coal_Related/RecMan/Reclamation_Manual.pdf.

1. *Keep the mining operation in a safe, clean, and environmentally stable condition.*
2. *Permanently seal all shafts and tunnels to prevent unauthorized or accidental entry.*
3. *Plug drill holes with a five foot cement surface plug. Holes that encounter fluids are to be plugged in the subsurface to prevent aquifer contamination.*
4. *Construct berms, fences, or barriers, when needed, above highwalls and excavations.*
5. *Remove, isolate, or neutralize all toxic materials in a manner compatible with federal and state regulations.*
6. *Remove all waste or debris from stream channels.*
7. *Dispose of any trash, scrap metal, wood, machinery, and buildings.*
8. *Conduct mining activities so as to minimize erosion and control sediment.*
9. *Reclaim all roads that are not part of a permanent transportation system.*
10. *Stockpile topsoil and suitable overburden prior to mining.*
11. *Stabilize highwalls by backfilling or rounding to 45 degrees or less, where feasible; reshape the land to near its original contour, and redistribute the topsoil and suitable overburden.*
12. *Properly prepare seedbed to a depth of six inches by pocking, ripping, discing, or harrowing. Leave the surface rough.*
13. *Reseed disturbed areas with adaptable species. (The Division recommends a mixture of species of grass, forb, and browse seed, and will provide a specific species list if requested.)*
14. *Plant the seed with a rangeland or farm drill, or broadcast the seed. Fall is the preferred time to seed.*

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V. VARIANCE REQUEST (Rule R647-3-110)

Any variance must be approved writing *in advance* by the Division

Any planned deviations from Rules R647-3-107, Operation Practices, R647-3-108, Hole Plugging Requirements, or R647-3-109, Reclamation Practices, as summarized above (see IV. Operation and Reclamation Practices Item # 1-14), should be identified below listing applicable rule number. Give justification for the variance(s) and alternate methods or measures to be utilized to meet the intent of the rule. Written approval from the Division will be given, if the proposed alternative methods to be used are consistent with the Act.

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Are variances being requested? Yes () No (X)

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Variance Requested

Div. of Oil, Gas & Mining

Item # Applicable Rule

Justification: _____

Alternate methods or measure to be utilized: _____

Attach additional page(s) if more variances are requested.

VI. SURETY (Utah Code Ann. §40-8-7(1)[c])

A reclamation contract and surety must be provided to and approved by the Division prior to commencement of operations. No surface disturbance is authorized until the surety is posted and approved in writing. The surety may be provided in the form of a certificate of deposit, a letter of credit, a surety bond, or cash. Please contact the Division for further information about submitting the surety. All mining operations are required to furnish and maintain reclamation surety to guarantee that the land affected is reclaimed (Utah Code Ann. §40-8-7(1)[c]).

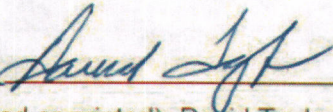
The reclamation surety amount is based on the nature, extent and duration of operations. The amounts are based on data from current large mine surety and are used as a general guide, along with actual site conditions. Reclamation surety for small mines is reviewed every three (3) or five (5) years and adjusted as necessary for inflation/deflation based upon acceptable Costs Index. **Contact the Division for the dollar amount required for a three (3) or five (5) year period for this project.**

VII. SIGNATURE REQUIREMENT

CERTIFICATION

I state under penalty of perjury under the laws of the state of Utah and the United States of America that:

- a. I have read this form and declare the information, statements and/or documentation are true, correct and complete to the best of my knowledge and belief; AND
- b. I commit to the reclamation of the aforementioned small mining project as required by the Utah Mined Land Reclamation Act (40-8) and the rules as specified by the Board of Oil, Gas and Mining.
- c. **This certification must be signed by:** (1.) an executive officer if the applicant is a corporation; (2.) a partner if applicant is a partnership (general or limited); (3.) the owner if applicant is a sole proprietorship; or (4.) the member or manager if applicant is a limited liability company.

Signature:  Date: 5/13/2016
Name (typed or printed): David Taylor
Title/Position (if applicable): President

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Operation Plan

Highwall mining methods will be utilized at the Number 2 Clark Mine. These methods are conducted in a four step process. The initial step is to remove and stockpile topsoil. Topsoil in the mining area is only approximately two to four inches in depth and lies on a three to eight foot layer of solid sandstone overburden. After the topsoil has been segregated and stockpiled (refer to the Surface Facility Map (Figure 3) for storage locations), the sandstone overburden will be removed and stored. This process may require the use of explosives to expedite the procedure. The overburden is removed using a track-hoe and/or loader and hauled to the subsoil storage area.

Once the overburden is removed a track-hoe is used to cut the humic shale ore from the face. The ore is loaded into haul trucks and hauled off-site directly to a processing facility. No humic shale ore will stockpiled on-site within the disturbed area of the Number 2 Clark Mine.

Presently, a 4.2 acre mine pad and 20' wide 620' long access road is planned for the site, all of which will be reclaimed. If reserves prove sufficient, mining operation may extend farther to the east and north. The Division will be notified prior to mining beyond the currently proposed area.

It is expected that approximately 250 cubic yards of topsoil will be salvaged from the proposed disturbed area. Subsoil may be minimal because of the over-riding sandstone overburden. Using an average of 4 foot thickness, it is estimated that approximately 6,000 cubic yards of sandstone and subsoil will be removed and salvaged. The material will be utilized to construct the proposed access road and berms. Excess material will be stored as detailed in Figure 3.

Highwalls are planned at the Number 2 Clark Mine. It is expected that highwalls will be approximately ten to fifteen feet in height. Protection to public safety and welfare around highwalls is discussed below. Figure 4 shows a cross-sectional sketch of the expected configuration of the highwall at the Number 2 Clark Mine. Figure 5 illustrates the proposed reclaimed highwall once mining has ceased. It is proposed to contemporaneously reclaim the highwalls as mining progresses north. No reclaimed slope will be constructed with a grade greater than 2 vertical to 1 horizontal.

Compliance with R647 Rules

In compliance with the R647-3-07 regulations for operation practices, the Number 2 Clark Mine will protect public safety and welfare by placing signs around the perimeter of the work area as well as any access roads to the area. The signs will indicate "Active Mine Perimeter, Danger Keep Out".

A berm or fence will be installed above all highwalls to detour traffic from entering area. If berms are constructed, the base will be two times the height. And, the height will be at least axle height to an average pick-up truck (approximately 18 inches).

If drainage ways are impacted by mining operations, the up gradient flow path of water will be rerouted to by-pass the work area. All undisturbed overland flows shall be by-passed around the work area utilizing berms, ditches, pipes, or a combination thereof.

Best management practices (BMP's) shall be used to control erosion and sedimentation of the disturbed runoff prior to draining into an adjacent natural drainage systems. Erosion and sediment control shall be implemented to the extent practical utilizing BMP's such as; sediment traps, silt fences, straw logs, diversion ditches, etc.

Trash and other extraneous materials shall be disposed of properly. Extraneous materials may be temporarily stored on-site in a manner that it is protected from wind gusts so that wind events do not scatter debris throughout or off the work site. These materials shall be removed from the work site and dispose of in a state approved landfill.

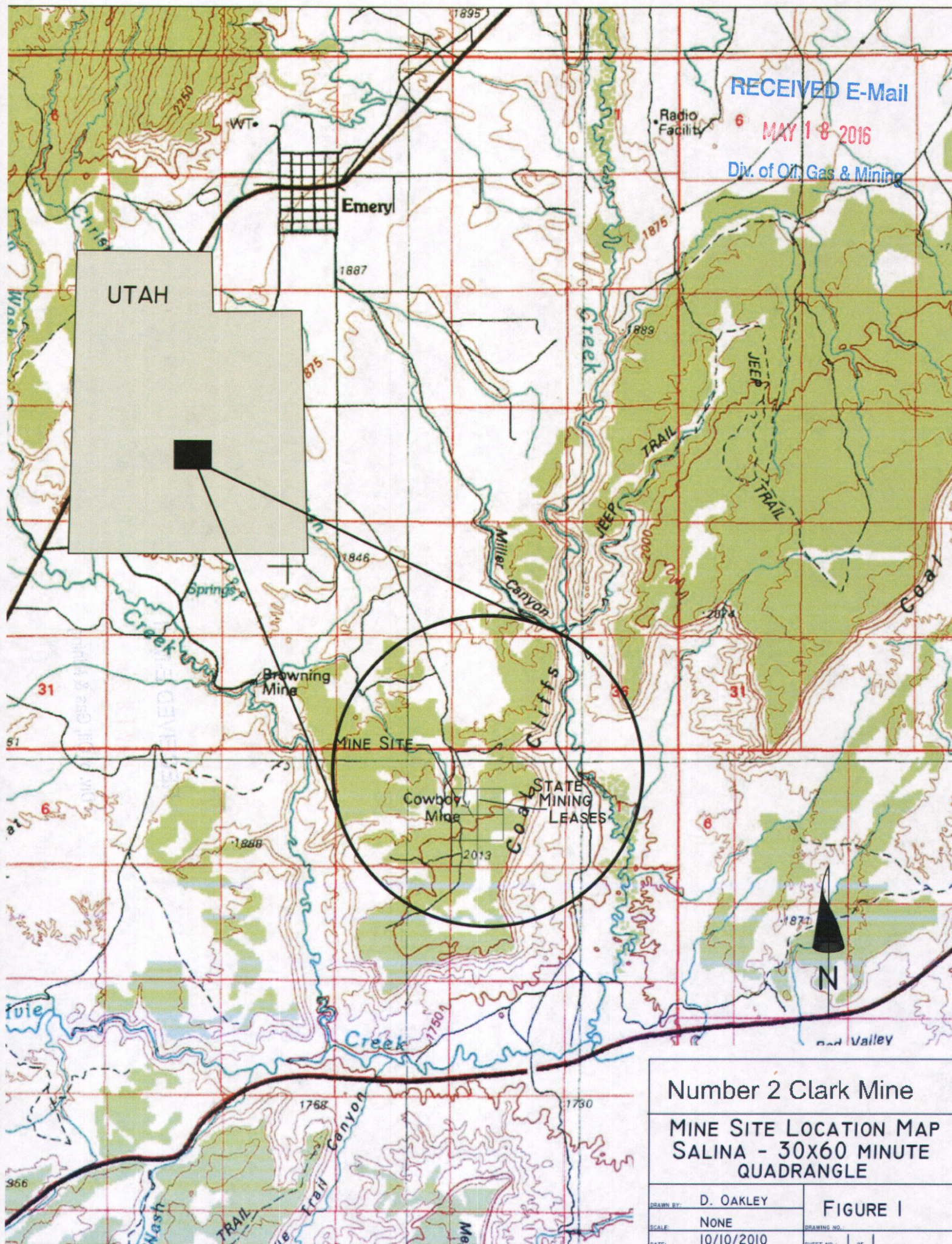
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MINE SITE LOCATION MAP
SALINA - 30X60 MINUTE
QUADRANGLE

FIGURE 1

DRAWING NO. 1

DATE: 10/10/2010

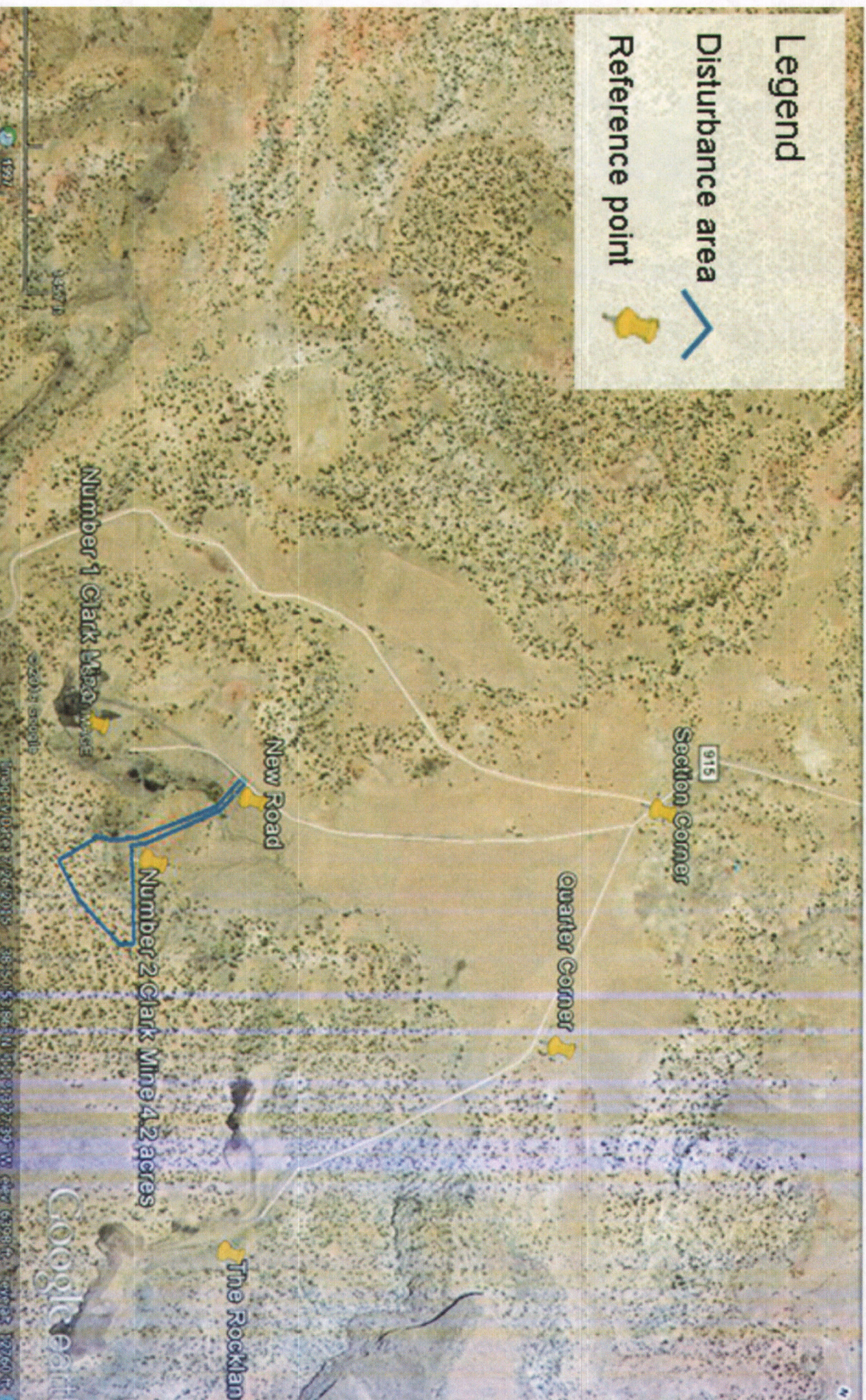
SHEET NO. : 1 OF 1

Figure 2, Number 2 Clark Mine. Proposed disturbed area is 4.2 acres, including 620' of new road.

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BERM CONSTRUCTION WILL COMPLY WITH MSHA REGULATIONS.

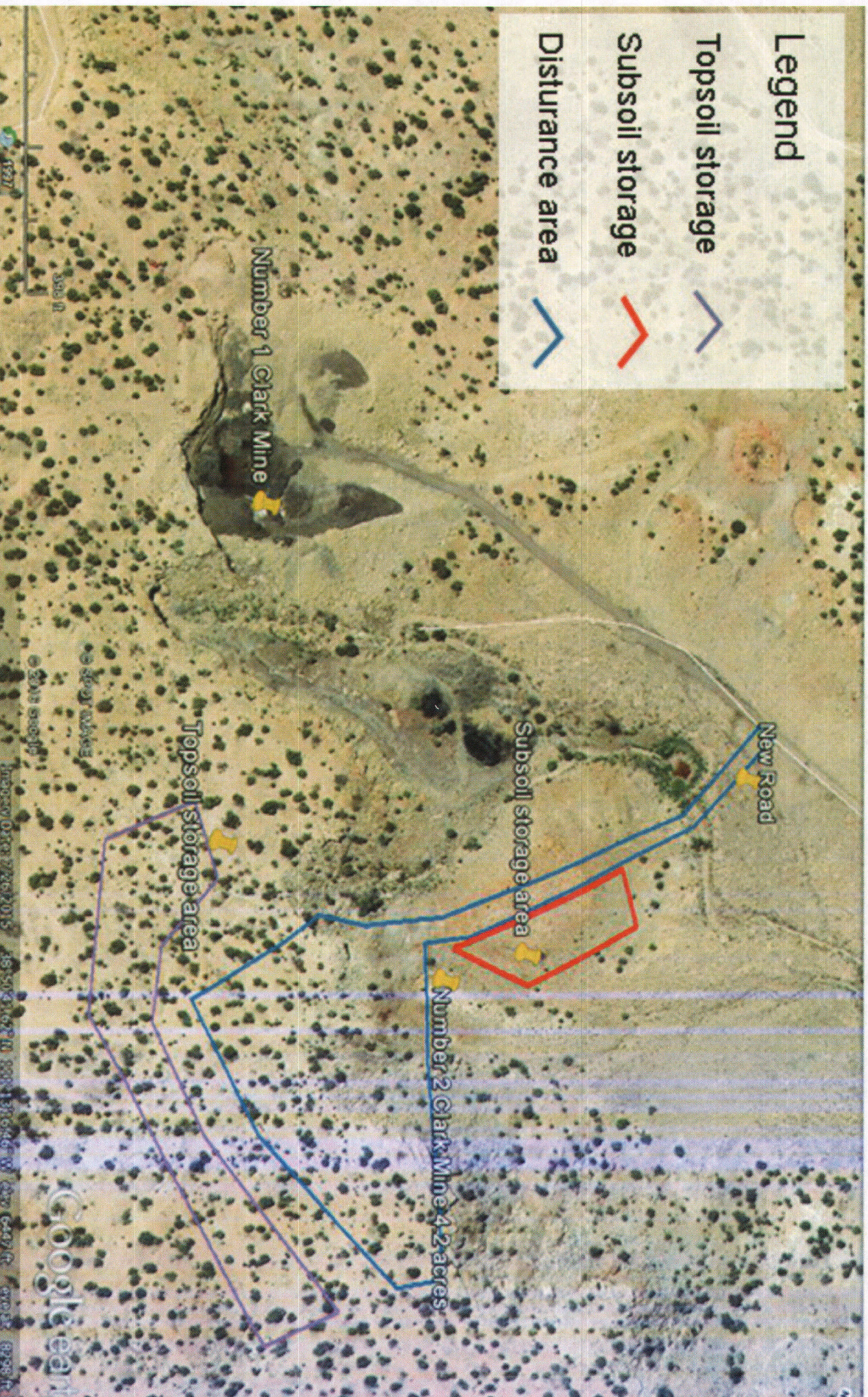
REVISIONS		DATE	MINE PAD - HIGHWALL CONFIGURATION	
			D. OAKLEY	FIGURE 4
			DESIGNED BY:	
			NONE	
			CHECKED BY:	
		3/22/2016	02/3/2011	DESIGNED BY:
APPROVED FIGURE NUMBER				DATE

Figure 3. Zoom of Number 2 Clark Mine. Proposed disturbed area is 4.2 acres, including 620' of new road.

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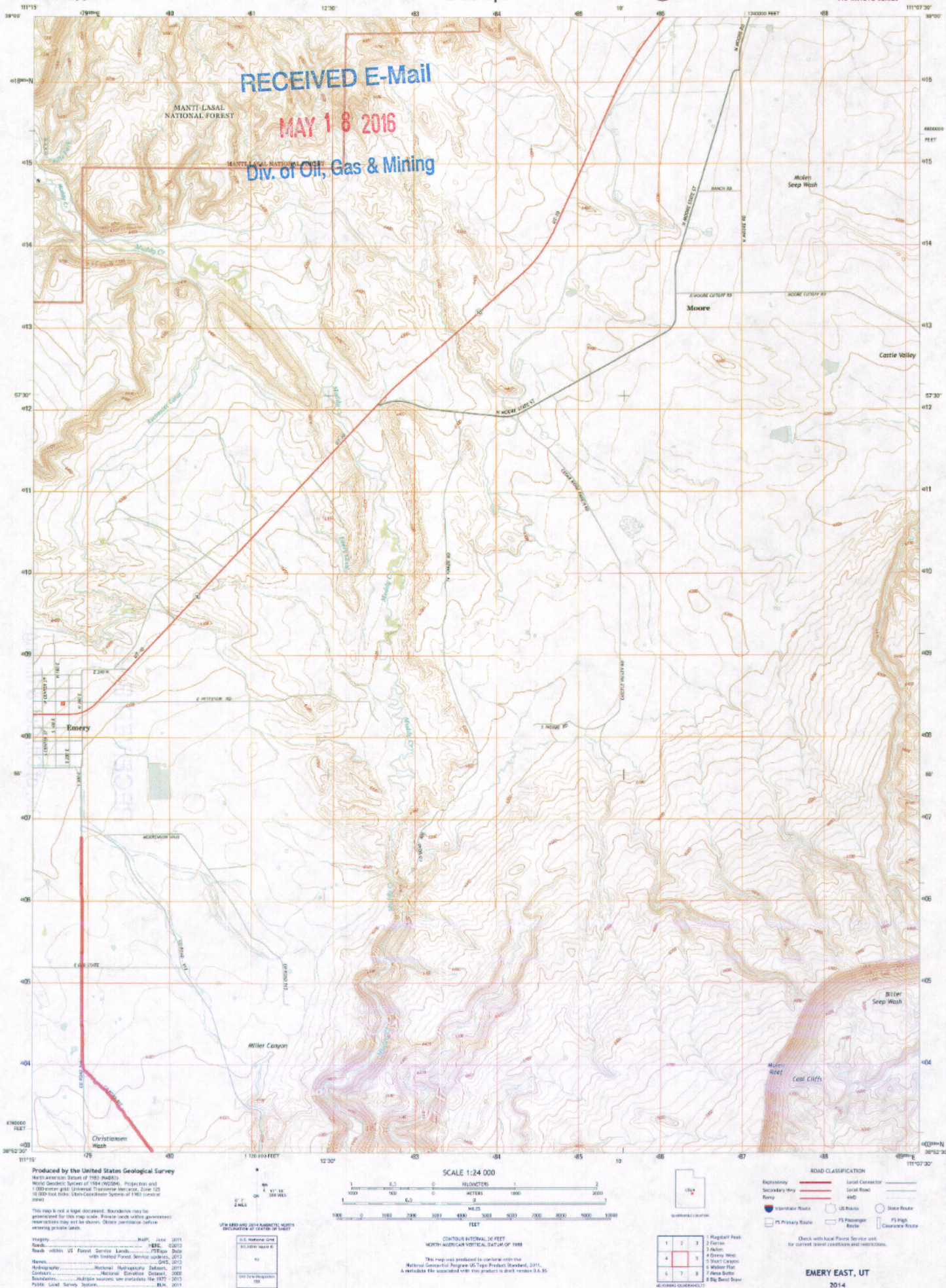
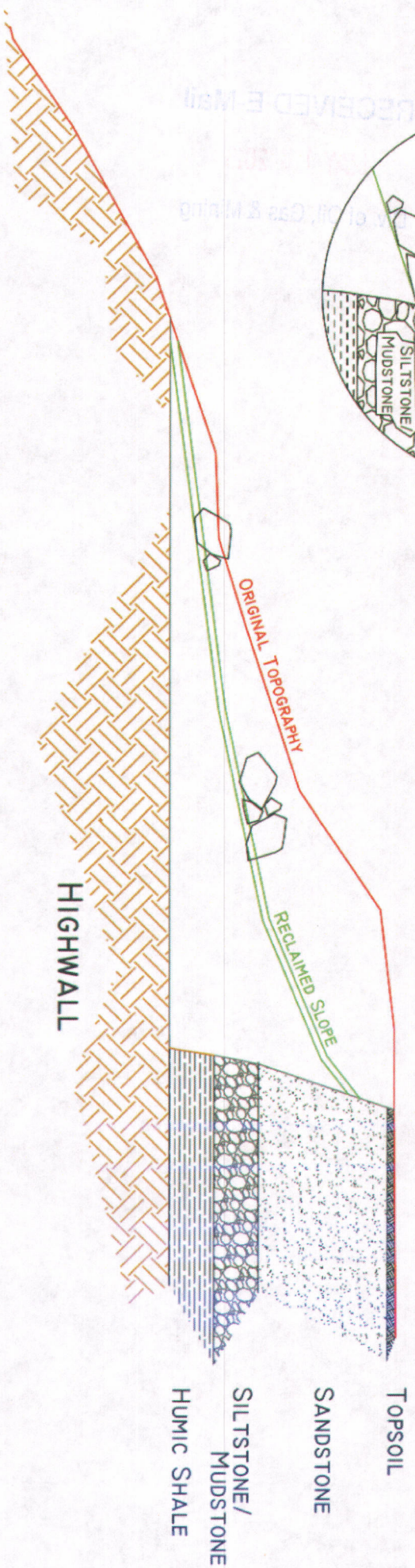


Diagram illustrating a geological cross-section of a slope. The slope is composed of three distinct layers: Sandstone (bottom), Siltstone (middle), and Mudstone (top). A loose bedrock is shown scaled onto the slope, with a green line indicating the failure surface.

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SEED MIX FOR RECLAIMED WILL BE APPROVED BY DOGM

REVISIONS		DATE	MINE PAD - HIGHWALL RECLAMATION	
			D. OAKLEY	FIGURE 5
			NONE	
		3/2/2011		
APPROVED FOLDER NUMBER			DRAWING NO. /	

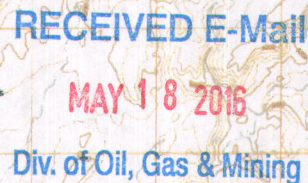


Figure 6b

ROAD CLASSIFICATION

Expressway		Local Connector	
Secondary Freeway		Local Road	
Ramp		400	

Interstate Route

US Route

State Route

MESA BUTTE, UT
2014